



# **OUTCOME EVALUATION FIFTH ANNUAL REPORT**

**Submitted to:**

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## **EXECUTIVE SUMMARY**

Fewer Arizona Department of Juvenile Corrections (ADJC) releases returned to custody within one or two years of their release. In fact, the 1999 ADJC releases posted a moderate decline (-6.5%) compared to the 1998 releases in the proportion of juveniles (20.1%) that returned to custody within one year. The 1999 ADJC releases had the lowest one year return to custody rate of the four release cohorts studied (see Table 1). Recidivism for this study was measured as a return to custody, and was manifested as either a parole revocation/recommitment to ADJC or a sentence to the Arizona Department of Corrections (ADC). This study also found that the ADJC 1998 release cohort posted a small decrease (-2.8%) as compared to the 1997 releases in the proportion of juveniles that returned to custody within two years of their release (35.5%). Research showed that the ADJC 1997 release cohort had a slight increase (.8%) as compared to the 1996 releases in the proportion of juveniles that returned to custody within three years (42.5%). Finally, this study found that less than one-half (45.5%) of the juveniles released from ADJC secure custody in 1996 returned to custody within four years of their release.

A comparison of state return to custody rates shows that ADJC's rates compare very favorably to most other states using the same definitions of recidivism. These favorable results in fact may be a reflection of the relative effectiveness of the programs and services employed with juvenile offenders in Arizona compared with those employed in other states. However, there are a number of limitations to these comparisons that require that any interpretations be made with considerable caution. First conclusions on differential effectiveness of programming and services is limited by information on the types, intensity and duration of the interventions from state to state. Second,

ADJC uses return to custody rates as its measure of recidivism, and it may underestimate the actual rates of subsequent delinquent or criminal behavior. Third, differences in return to custody rates may be the result of differences in the characteristics of the juvenile offenders under the jurisdiction of different state agencies. For all of these reasons, conclusions from state to state comparisons must be done with considerable caution and future return to custody research should be conducted so that additional information on across state differences (e.g. offender characteristics, differential programs and services) can be addressed.

**Table 1:**

	<b>1996 Releases (n=827)</b>	<b>1997 Releases (n=1,095)</b>	<b>1998 Releases (n=1,268)</b>	<b>1999 Releases (n=1,040)</b>
<b>12 Months</b>	<b>20.6%</b> ADC: 5.4% Recommit: 1% Parole Rev: 14.3%	<b>24.3%</b> ADC: 6.2% Recommit: 1.2% Parole Rev: 16.9%	<b>26.6%</b> ADC: 5.4% Recommit: .8% Parole Rev: 20.4%	<b>20.1%</b> ADC: 5.3% Recommit: 0% Parole Rev: 14.7%
<b>24 Months</b>	<b>34.8%</b> ADC: 16.3% Recommit: 1.3% Parole Rev: 17.1%	<b>38.3%</b> ADC: 16.1% Recommit: 1.7% Parole Rev: 20.5%	<b>35.5%</b> ADC: 11.4% Recommit: 1% Parole Rev: 22.8%	
<b>36 Months</b>	<b>41.7%</b> ADC: 23.5% Recommit: 1.3% Parole Rev: 16.9%	<b>42.5%</b> ADC: 22.3% Recommit: 1.6% Parole Rev: 18.7%		
<b>48 Months</b>	<b>45.5%</b> ADC: 28.9% Recommit: 1.5% Parole Rev: 15.2%			

Director Gaspar and the ADJC Leadership Team expressed a keen interest in converting ADJC return to custody numbers into management information useful at the institution or housing unit level. When discussing this interest with the ADJC Superintendents, they suggested that a more positive approach be taken, and the positive approach is reflected in a discussion of *success rates*,

which are equal to 100% minus the respective return to custody rates.

For the most part, ADJC institutional success rates for 1999 have improved over 1998. Indeed, there was an increase in success rates for Adobe Mountain, Black Canyon and Eagle Point Schools. For releases from Catalina Mountain School, however, the success rate decreased. A substantial decrease in success rates also occurred at Encanto, in fact, Encanto had the lowest success rate of all of the ADJC Secure Schools. An important factor that is related to the low success rate at Encanto is the difficult population of juveniles assigned to Encanto i.e., juvenile offenders with serious mental illnesses. Mesa Parole was the most successful of the five main parole offices and West Parole had the lowest success rate. Analysis of the reasons for the variations in institutional success rates has just begun, and should be viewed as a work in progress. Analysis of the reasons for variations in institutional success rates provides for some powerful findings that directly relate to the ADJC mission of *enhancing public protection by changing delinquent thinking and behaviors of juvenile offenders committed to the Department*.

Up to a certain point, the longer ADJC juveniles spent in secure custody, the lower their return to custody rates. Indeed, this study found a consistent pattern of higher return to custody rates for juveniles kept up to six months, than for juveniles kept seven or more months. What makes this finding so powerful is that it held true across three different release cohorts and for two, three and four year follow-up periods. Controlling for all other factors, as length of stay increases up to a certain point, the probability of return to custody decreases. Recent Arizona juvenile court and ADJC release practices have acknowledged this important fact in that research from this study

shows that the 1999 release cohort served more time in ADJC secure custody than the 1998, 1997 or 1996 release cohorts.

This study included a section on the logistic regression analyses of return to custody rates. Logistic regression analysis is useful because it provides for a precise specification of the relationship among the variables involved. Moreover, logistic regression analysis furnishes a deeper understanding of return to custody and what may be causing the observed variations in return to custody rates. It is the appropriate statistical method to use when the dependent variable (return to custody) is discrete rather than continuous. Logistic regression was conducted on all four of the release cohorts encompassing 3,624 cases of which 404 recidivated to ADC, 822 to ADJC, and the remaining 2,398 did not recidivate. Key findings from the logistic regression analysis include:

- Minorities excluding Native Americans, were more likely to return to custody than Caucasians;
- Males were more likely to recidivate than females;
- Juveniles with substance abuse problems were more likely to recidivate than those without substance problems. This issue is important for ADJC treatment staff to address because the needs of the 1999 release cohort were comparable to the previous three cohorts and among the *ADJC Treatment Service Factors*, *Substance Abuse* remained the most serious problem.
- Juveniles who were habitually abused and neglected were more likely to return to custody than juveniles who were not abused and neglected;
- Gang Affiliation increased the chances of a return to custody;
- The chances of return to custody increased considerably if a juvenile had three or more property offenses;
- As the number of referrals, petitions or adjudications increased, the chances of a return to custody also increased.
- As age at release increased, the likelihood of return to custody decreased. The rate at which return to custody declined was most rapid during the ages of 12 to 14. After that, though there was a decline, it was not quite as rapid as in the earlier phase.

One of the interesting Leadership Team questions relating to return to custody was whether the crimes committed after release from secure care, and hence the reason for subsequent re-confinement, were less serious than the ones for which they were initially incarcerated. As part of the analysis of this Leadership Team question a Sign test and the Wilcox Signed Rank test was

employed. Both the tests showed no statistically significant difference in the severity of offense before and after confinement. In other words, the evidence points in the direction of no decrease in the severity of offenses for those juvenile that recidivated.

This is the fifth in a series of annual Outcome Evaluation reports on juvenile offenders committed to ADJC. The reports are designed to comply with statutory requirements enacted in 1996 which established broad parameters for ADJC outcomes including short (12 months) and long (24 and 36 months) term changes in the frequency and severity of delinquent behavior and that reported outcomes permit comparisons between individual treatment plans. This report was prepared as a joint effort between the Research and Development (R/D) Section of the ADJC and the National Council on Crime and Delinquency (NCCD). The latter has produced four annual Outcome Evaluation reports in the past, and this report represents a continuation of their pioneering efforts. The report is organized into a section on the characteristics of the 1999, or newest release cohort to be studied, and comparisons of the 12, 24 and 36 month return to custody rates for the respective release cohorts. Also, this report presents the results of the tracking of ADJC releases a full 48 months after their release, the longest amount of ADJC recidivism tracking conducted to date. A section on the specific success and return to custody rates of the ADJC institutions, housing units and parole offices is also presented. A section addressing various recidivism topics of interest to the ADJC Leadership Team is contained in this report. A comparison of ADJC return to custody rates to comparable states is also presented. Finally, a section introduces future research endeavors associated with findings contained in this report

# TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1. <b>ADJC GENERAL RETURN TO CUSTODY RATES</b>	
A. 1999 Release Cohort .....	1
B. 12 Month Return to custody Comparison .....	8
C. 24 Month Return to custody Comparison .....	11
D. 36 Month Return to custody Comparison .....	14
E. 48 Month Return to custody Analysis .....	17
2. <b>ADJC SPECIFIC RETURN TO CUSTODY AND SUCCESS RATES FOR THE 1999 RELEASE COHORT</b>	
A. Secure School .....	19
B. Unit .....	23
C. Parole Office .....	27
3. <b>LEADERSHIP TEAM QUESTIONS</b>	
A. Return to custody Analyses .....	32
B. Outcomes by Committing County .....	45
C. Outcomes by Parole Supervision Level .....	48
D. Comparison Between Commitment Offense and Returning Offense .....	49
E. Outcomes by Length of Stay .....	50
F. Re-awards as a Proportion of Parole Violators .....	54
4. <b>SUMMARY OF NATIONAL RESEARCH ON JUVENILE OFFENDER RETURN TO CUSTODY</b>	
A. State Comparisons of Return to custody Rates .....	55
B. Interpreting Comparisons of Return to custody Rates .....	61
5. <b>CONCLUSIONS</b> .....	63
6. <b>FUTURE RESEARCH AGENDA</b> .....	65
7. <b>APPENDIX</b>	
A. Estimates for Logistic Regression Equations .....	66
B. Programming by Housing Unit in 1999 .....	68
7. <b>REFERENCES AND NOTES</b> .....	74





## **1. ADJC GENERAL RETURN TO CUSTODY RATES**

### **A. 1999 RELEASE COHORT**

The 1999 release cohort was comparable to the previous three release cohorts, however, there were important demographic and delinquency history differences. This section analyzes the demographic and delinquency history similarities and differences between the 1999 and previous release cohorts.

The demographic character of the 1999 release cohort was slightly different than the previous three cohorts. Indeed, they were somewhat older, there were more females and fewer Maricopa County releases than before. Most (86.8%) of the 1999 releases were male and a small percentage (13.2%) were female. Even though there were few females, the 1999 release cohort had the highest proportion of females among the four release cohorts (1999, 1998, 1997 and 1996). Maricopa County had a plurality (44.5%) but not a majority<sup>i</sup> of the 1999 releases. Pima County (27%) had relatively more releases (4.7%) in 1999 than in previous release cohorts. The remaining 13 Arizona counties accounted for 28.5% of the 1999 releases: a slight increase (3%) over previous cohorts. The single largest racial/ethnic category of releases was Hispanic (39.8%) followed by Caucasian (37.6%) African American (11.1%), Native American (6%), Mexican National (3.9%) and other (1.7%). The ranking of racial/ethnic groups in the 1999 release cohort was very similar to the previous release cohorts.

**Table 2:**

<b>AGE AT RELEASE BY YEAR OF RELEASE</b>				
	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
<b>9-13</b>	<b>2.3%</b>	<b>1.3%</b>	<b>1.7%</b>	<b>1.4%</b>
<b>14</b>	<b>10.1%</b>	<b>6.5%</b>	<b>6.6%</b>	<b>6.7%</b>
<b>15</b>	<b>21.1%</b>	<b>18.1%</b>	<b>18.3%</b>	<b>16.1%</b>
<b>16</b>	<b>27.8%</b>	<b>29.1%</b>	<b>24.8%</b>	<b>25.8%</b>
<b>17</b>	<b>37.2%</b>	<b>42.7%</b>	<b>48.6%</b>	<b>49.8%</b>
<b>18</b>	<b>1.6%</b>	<b>2.3%</b>	<b>.1%</b>	<b>.3</b>
<b>Total</b>	<b>100%</b> <b>(n=827)</b>	<b>100%</b> <b>(n=1,095)</b>	<b>100%</b> <b>(n=1,268)</b>	<b>100%</b> <b>(n=1,040)</b>
<b>Average</b>	<b>15.9</b>	<b>16.1</b>	<b>16.1</b>	<b>16.2</b>
<b>Median</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>17</b>

As displayed in Table 2., ADJC releases have gotten slightly older. Indeed, the proportion of 17 year olds has increased every year, while the proportion of 15 and 16 year olds has decreased. It is difficult to precisely calculate the impact of this “aging” on the ADJC release population, however, many researchers have found a strong correlation between age and criminal behavior:

The RAND criminal careers study found that offense rates varied significantly with age: criminality peaked early in the career. In the characteristic pattern, criminal activity begins at about age 14; the offense rate increases until the early 20s and tends to decline thereafter until age 30, when the majority of careers terminate. (Petersilia 1980, 357)

The delinquency history of the 1999 release cohort was slightly different than the previous three cohorts. The 1999 releases tended to have more referrals and adjudications and they also spent more time in ADJC secure care. There was a slight increase (2%) in the proportion of juveniles with 11 to

15 prior referrals and a slight decrease (3%) in those with six to 10 prior referrals (see Figure 1). Compared to the other release cohorts, there was a decrease in 1999 in the proportion of juveniles

with one to three adjudications, and an increase in the proportion that had seven to nine adjudications. (see Figure 2).

The 1999 release cohort continued the trend of juveniles serving more time in ADJC secure custody. Indeed, the proportion of juveniles serving 10 to 12 months more than doubled, from 9.2% in 1996 to 19.1% in 1999. Also, the proportion of juveniles serving 13 months or more, doubled from 7.4% in 1996 to 14.6% in 1999. Concurrently, there was a large decrease in the proportion of juveniles serving less than four months; in 1996, 33.4% of all releases served less than four months, and in 1999 only 18% of all releases served less than four months (see Figure 3).

Approximately one-half (49.3%) of the 1999 releases were determined to be a moderate risk to re-offend, one-third (31.6%) were determined to be high risk and one-fifth (19.2%) were determined to be low risk. There has been a steady increase in the proportion of releases determined to be low risk. In fact, 15.8% of the 1997 releases were low risk while 19.2% of the 1999 releases were low risk.

Table 3:

<b>ADJC RELEASE COHORTS: BY COMMITTING OFFENSE TYPE</b>				
	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
<b>Property Offenses</b>	46.2%	52%	51.3%	47%
<b>Crimes Against Persons</b>	18.6%	19.6%	20.2%	20.3%
<b>Drug Offenses</b>	11.2%	15.2%	13.6%	16.1%
<b>Public Order Offenses</b>	7%	8.3%	9.3%	11.1%
<b>Weapons Offenses</b>	2.8%	1.9%	2.7%	2.8%
<b>Other</b>	1.5 %	2.1%	2.5%	2.8%
<b>Missing</b>	12.7%	.9%	.4%	0
<b>Total</b>	100% (827)	100% (1093)	100%(1268)	100% (1040)

Almost one-half (47%) of the 1999 releases were originally placed in ADJC for Property Offenses, and approximately one-fifth (20.3%) were committed for Crimes Against Persons. Drug offenders (16.1%) and Public Order offenders (11.1%) also represented a large proportion of 1999 releases. Table 3 reveals the relative stability in committing offense across the four release cohorts. Table 3 also reveals an interesting and steady increase in drug and public order offenders among ADJC releases.

The needs of the 1999 release cohort were comparable to the previous three cohorts. Among the *ADJC Treatment Service Factors*, *Substance Abuse* remained the most common problem for the 1999 release cohort. In fact, 95.4% of the 1999 releases had substance abuse problems. There was virtually no variation in the proportion of releases with substance abuse problems across the four release cohorts. *Theft Behavior* addresses the property offense history of the juvenile, and as you can see from Figure 4 , over 80% of the releases had property offense histories. It's important to observe that almost two-thirds (65.3%) of the 1999 releases also had *Emotional Stability* problems. Members of the 1999 release cohort had other significant problems. Almost all (96.1%) of the 1999 releases had delinquent friends or were determined to have had trouble relating to others (See Figure 5). Almost two-thirds (64.1%) came from homes that lacked cooperation, had marital discord or experienced domestic violence. Finally, almost one-half (41.4%) had alleged or substantiated physical or sexual abuse in their background.

All ADJC juveniles progress through a level system. The highest level a juvenile is required to achieve while in an ADJC secure facility will depend upon their committing offense and risk

classification. Each of the five levels are progressive steps that establish behavioral expectations. The levels are Orientation, Freshman, Sophomore, Junior and Senior. Competency must be demonstrated at each level before the juvenile can move to a higher level. Juveniles must show achievement not only in daily behavior but also in treatment progress. As shown in Figure 6, the vast majority (84.1%) were at the Junior level<sup>ii</sup> upon their release and 14.3% were at the Sophomore level. Few (.6%) of the 1999 releases had progressed to the Senior level prior to their release from ADJC secure custody.

## B. 12 MONTH RETURN TO CUSTODY COMPARISON

**Table 4:**

	<b>1996 Releases (n=827)</b>	<b>1997 Releases (n=1,095)</b>	<b>1998 Releases (n=1,268)</b>	<b>1999 Releases (n=1,040)</b>
<b>12 Months</b>	<b>20.6%</b> ADC: 5.4% Recommit: 1% Parole Rev: 14.3%	<b>24.3%</b> ADC: 6.2% Recommit: 1.2% Parole Rev: 16.9%	<b>26.6%</b> ADC: 5.4% Recommit: .8% Parole Rev: 20.4%	<b>20.1%</b> ADC: 5.3% Recommit: 0% Parole Rev: 14.7%

This section analyzes the one-year return to custody rates for the 4,230 juveniles released from ADJC secure care from 1996 through 1999. The analysis is organized by year of release, and the follow-up period of twelve months was measured from the actual date of each juvenile's release.

The 1999 release cohort posted a moderate decline (-6.5%) from the 1998 release cohort in the proportion of juveniles that returned to custody within one year. In fact, the 1999 releases had the lowest one year return to custody rate (20.1%) of the four release cohorts studied, and was the first release cohort to post a decline in return to custody rates. As shown in Table 4, this decline was fueled by a moderate decrease (-5.7%) in the proportion of parole revocations and small declines (less than 1%) in the proportion of ADC commitments and ADJC recommitments.



The proportion of ADJC releases that were sentenced to ADC within one year of release *after* a probation violation increased. As displayed in Figure 7, fully one-half of the 1999 ADJC releases that were sentenced to ADC within one year of their ADJC release first failed adult probation. Tracking the number of ADJC releases that go to ADC after a probation violation provides important feedback on the operation of a key dimension of Arizona's justice system i.e., the handling of violent and chronic juvenile offenders.

While conviction for *Crimes Against Persons* or *Property Offenses* were the two primary reasons ADJC releases were sentenced to the ADC, there were decreases (see Figure 8) in the proportion of commitments for *Crimes Against Persons* and *Property Offenses* over the four years studied. Meanwhile, there were increases in the proportion of ADJC releases sentenced to ADC for *Drug* and *Public Order* offenses, which resulted in these latter two offense types representing 16% of all 1999

ADJC releases sentenced to ADC within one year after their release in 1999.



Analysis of the committing offenses of ADJC releases sentenced to ADC is important because many of these offenders may become career criminals. Tracking their offense patterns could help ADJC service providers target intervention programs on the appropriate criminogenic factors. Knowing that 80% of the young offenders that go to an Arizona prison after an ADJC commitment for a *Person* or *Property* crime implies ADJC programs may need to target criminogenic factors that directly related to *Person* or *Property* crimes.

### C. 24 MONTH RETURN TO CUSTODY RATES

**Table 5:**

	<b>1996 Releases (n=827)</b>	<b>1997 Releases (n=1,095)</b>	<b>1998 Releases (n=1,268)</b>
<b>24 Months</b>	<b>34.8%</b> ADC: 16.3% Recommit: 1.3% Parole Rev: 17.1%	<b>38.3%</b> ADC: 16.1% Recommit: 1.7% Parole Rev: 20.5%	<b>35.5%</b> ADC: 11.4% Recommit: 1% Parole Rev: 22.8%

This section analyzes the two-year return to custody rates for the 3,190 juveniles released from ADJC secure care from 1996 through 1998. The analysis is organized by year of release, and the follow-up period of 24 months was measured from the actual date of each juvenile's release.

The 1998 release cohort posted a small decrease (-2.8%) from the 1997 release cohort in the proportion of juveniles that returned to custody within two years. As shown in Table 5, this decline was induced by a 4.7% drop in the proportion of ADJC releases that were sentenced to ADC.

One half (50%) of the juveniles that were released from ADJC in 1998 and sentenced to ADC within

two years of their release were sentenced to ADC on a probation violation. Between 1996 and 1998, there was a small (7.8%) increase in the proportion of ADJC releases that were sentenced to ADC as probation violators (see Figure 9).

*Property Offenses* and *Crimes Against Persons* together represented 79.2% of all of the 1998 ADJC releases sentenced to ADC within two years of their release. Convictions for *Drug Offenses* (9%) was the third largest reason for a prison sentence. As shown in Figure 10, the proportion of *Property Offenders* has slightly increased over the three release cohorts, while the proportion of offenders convicted on *Crimes Against Persons* has slightly decreased. There was a small increase in the proportion of ADJC releases that were sentenced to ADC for *Drugs*.





## D. 36 MONTH RETURN TO CUSTODY RATES

**Table 6:**

	<b>1996 Releases (n=827)</b>	<b>1997 Releases (n=1,095)</b>
<b>36 Months</b>	<b>41.7%</b> ADC: 23.5% Recommit: 1.3% Parole Rev: 16.9%	<b>42.5%</b> ADC: 22.3% Recommit: 1.6% Parole Rev: 18.7%

This section analyzes the three-year return to custody rates for the 1,922 juveniles released from ADJC secure care from 1996 and 1997. The analysis is organized by year of release, and the follow-up period of thirty-six months was measured from the actual date of each juvenile's release.

The 1997 release cohort had a slight increase (.8%) compared to the 1996 release cohort in the proportion of juveniles that returned to custody within three years. As shown in Table 6, this increase was achieved as a result of an increase in the number of juveniles returned to ADJC for a parole revocation.

One-half (54.9%) of the juveniles that were released in 1997 from ADJC, and sentenced to ADC within three years of their release, were sentenced to ADC on a probation violation. Across the 1996 and 1997 release cohorts, there was an increase of 12.1% in the proportion of ADJC releases that were sentenced to ADC as probation violators (see Figure 11).

*Property Offenses* and *Crimes Against Persons* together represented 84.8% of all of the 1997 ADJC releases sentenced to ADC within three years of their release. Convictions for *Drug Offenses* (8.6%) was the third largest reason for a prison term. As shown in Figure 12, the proportion of *Property Offenders* has increased over the two cohorts studied, while the proportion of offenders convicted for *Crimes Against Persons* has slightly decreased. There was also a small decrease in the proportion of ADJC releases sentenced to ADC for *Weapons Offenses* and *Public Order Offenses*, and an increase in the proportion of releases sentenced to an Arizona prison for *Drugs*.





## E. 48 MONTH RETURN TO CUSTODY RATES

**Table 7:**

	<b>1996 Releases (n=827)</b>
<b>48 Months</b>	<b>45.5%</b> ADC: 28.9% Recommit: 1.5% Parole Rev: 15.2%

This section analyzes the four-year return to custody rates for the 827 juveniles released from ADJC secure care in 1996. The follow-up period of forty-eight months was measured from the actual date of each juvenile's release.

Less than one-half (45.5%) of the juveniles released from ADJC secure custody in 1996 returned to custody within four years of their release. Special notice should be made of the fact that less than one-third of the 1996 releases were sentenced to the ADC within four years of their release and only 15.2% had their parole revoked. Few juveniles in this cohort were recommitted to the ADJC (see Table 7).

**Table 8:**

<b>RETURN TO CUSTODY RATES FOR 1996 ADJC RELEASE COHORT</b>	
<b>12 Months</b>	<b>20.6%</b>
<b>24 Months</b>	<b>34.8%</b>
<b>36 Months</b>	<b>41.7%</b>
<b>48 Months</b>	<b>45.5%</b>

As shown in Table 8, the proportion of 1996 releases that recidivated has increased with each

additional year of follow-up. The rate of growth in return to custody, however, has decreased each year. This decrease may indicate an important threshold is near. In other words, the increase of only 6.9% in the overall proportion of recidivists between the 24 and 36 month rates may mean that if a juvenile doesn't recidivate by a certain point (say two years) then the likelihood of an individual juvenile's returning to custody may drop after two years. If future outcome evaluation studies confirm this finding, then it can provide useful management information to Community Supervision (Parole) staff. If we find, for example, that historically 80% of the return to custody occurs within 24 months of release, then Parole staff can devote more attention to juveniles on Parole for less than 24 months, than those on Parole for more than 24 months. This finding may allow Parole staff to leverage their time and to work effectively with those cases that are shown at-risk to re-offend.

Under one-half (42.3%) of the juveniles that were released from ADJC and sentenced to ADC within four years of their release were sentenced to ADC on a probation violation.

Table 9:

<b>Juveniles in the 1996 Release Cohort that Were sentenced to ADC By Committing Offense Type</b>	
Property Offenses	101 (42.3%)
Crimes Against Persons	92 (38.5%)
Drug Offenses	15 (6.3%)
Public Order Offenses	14 (5.9%)
Weapons Offenses	12 (5%)

Other Offenses	5 (2.1%)
Total	239 (100%)

*Property offenses* and *Crimes Against Persons* together represented 80.8% of all of the ADJC releases sentenced to ADC within four years of their release. As shown in Table 9, the combined proportion of cases that were sentenced to ADC for *Public Order, Weapons or Other* offenses was 13%.

## 2. ADJC SPECIFIC SUCCESS RATES FOR THE 1999 RELEASE COHORT

Up to this point in the report, our analysis has focused on a traditional measure of recidivism i.e., return to custody. Director Gaspar and the ADJC Leadership Team expressed a keen interest in converting department return to custody numbers into management information useful at the institution or housing unit level. When discussing this initiative with the ADJC Superintendents, they suggested that a positive approach be taken, and the positive approach is reflected in this sections discussion of *success rates*, which are equal to 100% minus the respective return to custody rates. This positive approach will appropriately acknowledge the effort and dedication of the many ADJC staff that work with Arizona's most troubled juveniles, and it will also encourage constructive discussions<sup>iii</sup> regarding why some units have better success rates than others. This section, therefore, will discuss success rates as they relate to the 1999 cohort, and the discussion will be organized by ADJC Secure School, Housing Unit and Parole Office. Analysis of the reasons for the variations in institutional success rates has just begun, and should be viewed as a work in progress. Analysis of the reasons for variations in institutional success rates provides for some powerful findings that directly relate to the ADJC mission of *enhancing public protection by changing delinquent thinking and behaviors of juvenile offenders committed to the Department*. The appendix of this report contains a brief description of the program type of each housing unit in 1999. Future analyses of this type of information holds great promise in assisting ADJC management better understand the specific unit level factors that correlate with success rates.

## A. BY SECURE SCHOOL

For the most part, success rates for 1999 have improved. Figure 13, shows an increase in success rates for Adobe Mountain (AMS), Black Canyon (BCS) and Eagle Point Schools (EPS). For releases from Catalina Mountain School (CMS), the success rate decreased from 80.1% to 75%. A substantial decrease in success rates occurred at Encanto (ENC) from 54.8% in 1998 to 37.5% in 1999. Table 10 shows the details of the success and recidivism rates by ADJC secure school.

Table 10:

	Adobe Mountain	Black Canyon	Catalina Mountain	Eagle Point	Encanto	Total
ADC	22 (4.3%)	9 (3.7%)	12 (7.7%)	12 (10.1%)	1 (12.5%)	56 (5.4%)
Recommit	0	1 (0.4%)	0	0	0	1 (0.1%)
Parole Violator	84 (16.3%)	27 (11.2%)	27 (17.3%)	11 (9.2%)	4 (50.0%)	153 (14.7%)
Total Recidivism	106 (20.5%)	37 (15.4%)	39 (25.0%)	23 (19.3%)	5 (62.5%)	210 (20.2%)
Discharge	235 (45.5%)	119 (49.4%)	72 (46.2%)	72 (60.5%)	1 (12.5%)	499 (48.0%)
Parole	175 (33.9%)	85 (35.3%)	45 (28.9%)	24 (20.2%)	2 (25.0%)	331 (31.9%)
Total Success	410 (79.5%)	204 (84.6%)	117 (75.0%)	96 (80.7%)	3 (37.5%)	830 (79.8%)
TOTAL	516 (100%)	241 (100%)	156 (100%)	119 (100%)	8 (100%)	1040 (100%)

Nearly half (49.6%) of the 1999 releases were released from Adobe Mountain School and Black Canyon School released 23.2% of the 1999 releases. Catalina Mountain School released 15.0% of the total number of releases, and Encanto had less than 1 percent of the total releases (0.8%). Although, Black Canyon School had the highest success rate of 84.6%, when you separate the females from the males, Black Canyon School-Males success rate was 72.1%, the second lowest success rate. Figure 14 shows the success rates by individual housing units and the housing units are color coded to correspond to their respective institution. As displayed in Figure 14, three Black Canyon School housing units: Success, Recovery and Independence and one Adobe Mountain housing unit: Freedom had 100% success rates. Analyses of the reasons for the variations in the housing unit and institutional success rates are forthcoming and will be presented in future Outcome Evaluation reports. Meanwhile, it is very encouraging to note that four ADJC housing units had none of their juveniles return to custody within one year of their release, and all but eight ADJC housing units had three quarter or more of their releases not return to custody within one year of release.





## HOUSING UNIT GRAPH

## B. BY UNIT

Table 11:

ADOBE MOUNTAIN SCHOOL										
	ADC		Parole Revoked		Total Recidivism		Total Success		Total	
	#	%	#	%	#	%	#	%	#	%
Alpha	1	4.5%	10	11.9%	11	10.4%	39	9.5%	50	9.7%
Challenge	1	4.5%	4	4.8%	5	4.7%	28	6.8%	33	6.4%
Charlie	1	4.5%	3	3.6%	4	3.8%	6	1.5%	10	1.9%
Crossroads	1	4.5%	3	3.6%	4	3.8%	18	4.4%	22	4.3%
Encanto	0	0.0%	3	3.6%	3	2.8%	18	4.4%	21	4.1%
Enterprise	2	9.1%	9	10.7%	11	10.4%	33	8.0%	44	8.5%
Estrella	1	4.5%	6	7.1%	7	6.6%	21	5.1%	28	5.4%
Freedom	0	0.0%	0	0.0%	0	0.0%	21	5.1%	21	4.1%
Genesis	0	0.0%	7	8.3%	7	6.6%	24	5.9%	31	6.0%
Hope	3	13.6%	6	7.1%	9	8.5%	23	5.6%	32	6.2%
January	2	9.1%	5	6.0%	7	6.6%	28	6.8%	35	6.8%
Journey	0	0.0%	3	3.6%	3	2.8%	10	2.4%	13	2.5%
Kachina	1	4.5%	5	6.0%	6	5.7%	32	7.8%	38	7.4%
Nova	2	9.1%	1	1.2%	3	2.8%	38	9.3%	41	7.9%
Oasis	0	0.0%	6	7.1%	6	5.7%	21	5.1%	27	5.2%
Phoenix	4	18.2%	4	4.8%	8	7.5%	31	7.6%	39	7.6%

Recovery	3	13.6%	7	8.3%	10	9.4%	13	3.2%	23	4.5%
Turning Point	0	0.0%	2	2.4%	2	1.9%	6	1.5%	8	1.6%
TOTAL	22	100%	84	100%	106	100%	410	100%	516	100%

In CY 1999, the average population at Adobe Mountain School was 447 juveniles, and 516 juveniles were released from AMS in CY 1999. Table 11 indicates, by housing unit, the number and percentage of juveniles by outcome type. The most successful housing unit at Adobe Mountain School was Nova, only three of the 41 juveniles recidivated within one-year. Sixteen of the 106 juveniles who returned to custody within one year were re-awarded to ADJC.

Table 12:

CATALINA MOUNTAIN SCHOOL										
	ADC		Parole Revoked		Total Recidivism		Total Success		Total	
Agave	1	8.3%	2	7.4%	3	7.7%	11	9.4%	14	9.0%
Chiricuhua	2	16.7%	4	14.8%	6	15.4%	20	17.1%	26	16.7%
Saguaro	0	0.0%	5	18.5%	5	12.8%	6	5.1%	11	7.1%
Manzanita	1	8.3%	5	18.5%	6	15.4%	34	29.1%	40	25.6%
Mesquite	6	50.0%	10	37.0%	16	41.0%	30	25.6%	46	29.5%
Palo Verde	2	16.7%	1	3.7%	3	7.7%	15	12.8%	18	11.5%
Yucca	0	0.0%	0	0.0%	0	0.0%	1	100%	1	.6%
TOTAL	12	100%	27	100%	39	100%	117	100%	156	100%

In CY 1999, the average population at Catalina Mountain School (CMS) was 148 juveniles,

and 156 juveniles were released from CMS in CY 1999. Table 12 indicates, by housing unit, the number and percentage of juveniles by outcome. The most successful housing unit at CMS was Manzanita, a general housing unit which managed youth that were over 15 years old. Only six of the 40 juveniles released from Manzanita returned to custody within one-year. Palo Verde, which managed the intensive substance abuse program, was the second most successful housing unit at CMS. Crossroads-Saguaro, an intensive violent offender treatment unit had the lowest success rate of 54.5%, followed by Mesquite which generally managed youth that were lower functioning, and difficult to manage (65.2%). Six of the 39 juveniles who returned to custody within one year were re-awarded to ADJC.

Table 13:

<b>BLACK CANYON SCHOOL-MALE</b>												
	ADC		Re-Commit		Parole Revoked		Total Recidivism		Total Success		Total	
Bootcamp	0	0	0	0	6	30.0%	6	20.7%	9	12.0%	15	15.8%
Destiny	5	62.5%	0	0	6	30.0%	11	37.9%	34	45.3%	45	42.1%
Quest	3	37.5%	1	100%	8	40.0%	12	41.4%	32	42.7%	44	42.1%
TOTAL	8	100%	1	100%	20	100%	29	100%	75	100%	104	100%

In CY 1999, the average population at Black Canyon School (BCS) was 167 juveniles, and 241 juveniles were released in CY 1999. Table 13 indicates, by housing unit, the number and percentage of juveniles by outcome. The most successful housing unit at BCS-Male was Destiny, a general housing unit which managed youth from the outlying counties: only 11 of the 45 juveniles released recidivated. The Bootcamp Program, which closed in February 1999, had the lowest BCS male success rate of 60%. Six of the 29 juveniles who returned to custody within one year were re-awarded to ADJC.

Table 14:

<b>BLACK CANYON SCHOOL-FEMALE</b>										
	ADC		Parole Revoked		Total Recidivism		Total Success		Total	
Horizon	0	0	2	28.6%	2	25.0%	9	7.0%	11	8.0%
Independence	0	0	0	0	0	0	5	3.9%	5	3.7%
Pride	0	0	2	28.6%	2	25.0%	28	21.7%	30	21.9%
Recovery	0	0	0	0	0	0	16	12.4%	16	11.7%

Success	0	0	0	0	0	0	29	22.5%	29	21.2%
Venture	1	100%	3	42.8%	4	50.0%	42	32.6%	46	33.6%
TOTAL	1	100%	7	100%	8	100%	129	100%	137	100%

Of the 137 females released from BCS only eight females returned within one year of release. Of the three units showing no recidivism, only one of them was in operation for the 12 months:Success. Independence Unit was opened in October and Recovery took over unit Horizon. One of the 8 females who returned to custody within one year was re-awarded to ADJC.

Table 15:

<b>EAGLE POINT</b>										
	ADC		Parole Violator		Total Recidivism		Total Success		Total	
Cougar	6	50.0%	0	0.0%	6	26.1%	21	21.9%	27	22.7%
Deer	2	16.7%	4	36.4%	6	26.1%	21	21.9%	27	22.7%
Elk	2	16.7%	2	18.2%	4	17.4%	27	28.1%	31	26.1%
Falcon	2	16.7%	5	45.5%	7	30.4%	27	28.1%	34	28.6%
TOTAL	12	100%	11	100%	23	100%	96	100%	119	100%

In CY 1999, the average population at Eagle Point was 92, and 119 juveniles were released from EP in CY 1999. The most successful unit at EP was Elk with a success rate of 87.1%. The Cougar and Deer Unit had the lowest success rate of 77.8%. All six juveniles released from Cougar were subsequently sentenced to ADC custody.

Table 16:

<b>ENCANTO</b>										
	ADC		Parole Revoked		Total Recidivism		Total Success		Total	
Triumph	1	100%	4	100%	5	100%	3	100%	8	100%
TOTAL	1	100%	4	100%	5	100%	3	100%	8	100%

Encanto had the lowest success rate of all (37.5%) of the Secure Schools. An important factor that is related to the low success rate is the difficult population of juveniles assigned to Encanto. In fact, juveniles assigned to Encanto have serious mental illnesses.

## C. BY PAROLE OFFICE

Table 17:

	ADC		Parole Revoked		Total Recidivism		Total Success		Total	
	#	%	#	%	#	%	#	%	#	%
Mesa	8	14.3%	10	6.5%	18	8.6%	117	14.1%	135	13.0%
South	6	10.7%	16	10.5%	22	10.5%	65	7.8%	87	8.4%
North	4	7.1%	13	8.5%	17	8.1%	75	9.0%	92	8.9%
Tucson	16	28.6%	43	28.1%	59	28.2%	192	23.1%	251	24.2%
West	5	8.9%	32	20.9%	37	17.7%	77	9.3%	114	11.0%
Interstate	0	0.0%	0	0.0%	0	0.0%	23	2.8%	23	2.2%
Outlying Counties	17	30.4%	33	21.6%	50	23.9%	205	24.8%	255	24.5%
ICMP	0	0.0%	2	1.3%	2	1.0%	4	0.4%	6	0.6%
Continuum Girls- Phx/Tucson	0	0.0%	4	2.6%	4	1.9%	58	7.0%	62	6.0%
Unknown	0	0.0%	0	0.0%	0	0.0%	14	1.7%	14	1.3%
TOTAL	56	100%	153	100%	209	100%	830	100%	1039	100%

Mesa Parole was the most successful of the five main parole offices with a 86.6% success rate. West Parole had the lowest success rate of 67.5%, and, West Parole had the highest number of juveniles re-awarded. Nearly half (48.7%) of the 1999 releases were assigned to either one of the outlying counties (24.6%) or Tucson Parole (24.1%). As shown in Figure15, Tucson Parole accounted for eight of the 32 juveniles that were re-awarded.



In the 1999 cohort, eight girls recidivated, 50% were assigned to the Girls Continuum, while

25% were assigned to an Outlying County.

Of the 210 juveniles that recidivated during the 1999 cohort, 144 (68.6%) returned to custody

within six months of their initial release. The average length of stay for male juveniles on parole prior to being sentenced to ADC custody was 144 days, while female juveniles sentenced to ADC custody had an average length of stay of 213 days on parole.

Approximately 28.6% of the juveniles sentenced to ADC custody recidivated within three months of their release. Another 53.6% of the juveniles sentenced to ADC custody did so within seven to 12 months of their initial release. Of the total number of juveniles who had their parole revoked, 77.2% were within six months of their release from secure care, followed by 20.9% having their parole revoked within seven to nine months. Less than two percent of the juveniles having their parole revoked recidivated within 10 to 12 months of their release.

Table 18a:

<b>Length of Stay on Parole by Outcome</b>			
	ADC	Parole Revoked	Total
Three months or less	16 (28.6%)	59 (38.6%)	75 (35.7%)
4 to 6 months	10 (17.9%)	59 (38.6%)	69 (32.9%)
7 to 9 months	16 (28.6%)	32 (20.9%)	49 (23.3%)
10 to 12 months	14 (25.0%)	3 (1.9%)	17 (8.1%)
TOTAL	56 Mean=145.3 days	153 Mean=120.1 days	210 Mean=127.2 days

Parole office success rates

## Figure 17: PLACEMENT UPON INITIAL RELEASE

Table 18b:

	Community		Placement		Discharges		Total	
Return to Custody	103	18.6%	81	28.8%	26	12.7%	210	20.2%
Parole/Discharge	451	81.4%	200	71.2%	179	87.3%	830	79.8%
Total	554	100%	281	100%	205	100%	1040	100.0%

Of the 1,040 juveniles released in 1999, 27% of them were initially placed in a residential placement center, while 53.3% were released into the community. Approximately 19.7% of the juveniles released in 1999 were given a discharge. Slightly over three-fourths of all discharges were for juveniles turning 18 years old. Less than two percent of the total number of discharges were earned (1.9%). As shown in Table 18b and Figure 17, juveniles were

more successful when they were in the community (81%) vs. a placement (71%).

### **3. LEADERSHIP TEAM QUESTIONS**

In January of 2001, NCCD submitted *Outcome Evaluation Fourth Annual Report*. Dr. Robert DeComo of NCCD presented the report to the Leadership Team on January 30, 2001. During that presentation, the Leadership Team asked several follow-up questions that required additional data analyses. NCCD and R/D staff prepared responses to their questions and presented the results at another Leadership Team meeting on June 28, 2001. Additional questions on return to custody were posed by the Leadership Team at that meeting. This section reports on the results of the NCCD and R/D analyses of the Leadership Team questions. Some of the Leadership Team questions e.g., specific Housing Unit and Parole Office return to custody rates are answered elsewhere in this report to retain logical consistency. Answers to a Leadership Team question on multiple returns to custody were contained in *Outcome Evaluation: Selected Topics* by R/D which was completed in April of 2001, and that analysis has been excluded from this report because it would duplicate and differ with updated data contained in this report.

#### **A. RETURN TO CUSTODY ANALYSIS**

The analysis of ADJC recidivists in this report has focused on the 1999 release cohort and how their characteristics differ, if at all, from the previous three release cohorts. Also, the results of 12, 24 and 36 month ADJC return to custody rate descriptive analyses were presented which allowed for trend analyses relative to overall return to custody, ADJC releases sentenced to ADC, recommitments and parole violator rates. We have also presented the 48 month return to custody rates for the 1996 release

cohort. Finally we have presented the success rates achieved by the releases from each ADJC institution, housing unit and parole office. This section will present the results of two additional examinations of the same data. The first examination will compare and contrast the characteristics of the 1997 release cohort to those that had *Any Return to Custody*, *Multiple Returns to Custody*, or were sentenced to *ADC Before They Turned 18* years old. The 1997 release cohort was selected for this analysis because it probably provided a sufficient<sup>iv</sup> amount of time to determine a valid overall return to custody rate. The second examination will consist of a logistic regression analysis of all four release cohorts consisting of 3,624 cases. Inclusion of logistic regression analysis is useful because logistic regression provides for a precise specification of the relationship among the variables involved. Moreover, logistic regression analysis furnishes a deeper understanding of return to custody and what may be causing the observed variations in return to custody rates. It is the appropriate statistical method to use when the dependent variable (return to custody) is discrete rather than continuous. Another reason that logistic regression analysis is helpful is that it produces intuitively understandable *probabilities*, which are helpful to predict return to custody rates for selected groups of juvenile offenders.

Two recidivist groups pose serious challenges to the juvenile/criminal justice system: those with multiple returns to custody and those that upon release from ADJC are subsequently convicted of an adult offense and sentenced to ADC before they turned 18 years old. For the purposes of this study, they are known as serious recidivists. The former group represents a special challenge to the juvenile/criminal justice system insofar as when they cycle in and out of different correctional settings they demonstrate sufficient institutional adjustment to be released, however, for some reason, they fail to convert that institutional success into behavioral changes in their communities. As a result, this

group returns to correctional settings many times. Indeed, 27 juveniles in the 1997 release cohort had three returns to custody, eight had four returns to custody and one juvenile had five returns to custody within three years of his initial ADJC release date. The group of ADJC releases that are sentenced to ADC before their 18<sup>th</sup> birthday represent the violent or chronic juvenile offenders that spawned the passage of Arizona Proposition 102 and Senate Bill 1446. These juvenile offenders, by statute, must be prosecuted in adult Superior Court because they have been deemed ineligible for the rehabilitative programming that underpins Arizona's juvenile justice system. Identification of the characteristics of this cohort may help ADJC staff to target those juvenile offenders before they are lost to the rehabilitative programming of ADJC and sent into the adult criminal justice system.

Table 19.

	<b>All Releases</b>	<b>Any Return to Custody</b>	<b>Multiple Returns to Custody</b>	<b>ADC Custody Under 18</b>
<b>Gender</b>				
<b>Male</b>	89.8%	93.9%	92.9%	97.3%
<b>Female</b>	10.2%	6.1%	7.1%	2.7%
<b>Total</b>	100% (n=1083)	100% (n=460)	100% (n=156)	100% (n=74)
<b>Race/Ethnicity</b>				
<b>Caucasn.</b>	36.4%	33%	31.4%	28.4%
<b>Af. Amr.</b>	10.4%	11.3%	10.9%	12.2%
<b>Nat. Am</b>	4.5%	3.3%	2.6%	1.4%
<b>Hispan.</b>	44.5%	48.9%	50%	50%
<b>Asian</b>	.6%	.7%	1.3%	2.7%
<b>Mx. Nat.</b>	2.8%	2.6%	3.8%	4.1%
<b>Other</b>	.7%	.2%	0	1.4%
<b>Total</b>	100%	100%	100%	100%



	(n=1083 )	(n=460)	(n=158)	(n=74)
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Males and minorities had higher return to custody rates than comparison groups. As displayed in Table 19, males returned to custody at a higher rate than females and males tended to be serious recidivists more often than females. In fact, almost all, (97.3%) of those sentenced to ADC under 18 years old were male. The proportion of Caucasian juveniles with return to custody problems decreases as you move from the category of *Any Return to Custody*, to *Multiple Returns*, to *ADC Custody Under 18 years old*. Concurrent with that decrease, is an increase in the proportion of minority juveniles that had serious return to custody problems. There was a moderate increase in the proportion of Hispanic juveniles that had any, or a serious return to custody problem, and a small increase in the proportion of African American juveniles with the same characteristics.

Table 20

	All Releases	Any Return to Custody	Multiple Returns to Custody	ADC Custody Under 18
<b>Offense Type</b>				
<b>Drug</b>	15.2%	13	12.2%	5.4%
<b>Property</b>	52%	55.4%	56.4%	55.4%
<b>Persons</b>	19.6%	17.4%	16%	27%
<b>Weapons</b>	1.9%	2.2%	1.9%	2.7%
<b>Pub. Ord</b>	8.3%	9.8%	10.3%	5.4%
<b>Other</b>	2.1%	2.2%	3.2%	4.1%
<b>Total</b>	100% (n=1083)	100% (n=460)	100% (n=156)	100% (n=74)
<b>Number of Adjudic.</b>				
<b>1</b>	6.8%	4.5%	1.9%	6.8%
<b>2-3</b>	27.5%	26.5%	25.4%	28.4%
<b>4-5</b>	35.8%	37.2%	38%	37.9%
<b>6-7</b>	14.8%	14.7%	17.1%	13.5%
<b>≥8</b>	15.1%	17.1%	17.6%	13.7%
<b>Total</b>	100% (n=1093)	100% (n=465)	100% (n=158)	100% (n=74)
<b>Age at First Referral</b>				
<b>under 11</b>	13.5%	17.3%	22.2%	19.1%
<b>11</b>	12.4%	14.4%	11.4%	21.6%
<b>12</b>	17.1%	20.4%	20.9%	18.8%
<b>13</b>	19.2%	17.7%	18.4%	18.8%
<b>14</b>	19.7%	17.7%	18.4%	16.2%
<b>≥15</b>	18.1%	12.5%	8.9%	5.5%
<b>Total</b>	100% (n=1093)	100% (n=465)	100% (n=158)	100% (n=74)

Table 20 (continued)

	All Releases	Any Return to Custody	Multiple Returns to Custody	ADC Custody Under 18
Risk Level				
Low	15.8%	10%	7.1%	9.5%
Medium	46.3%	45.2%	45.8%	48.6%
High	37.9%	44.8%	47.1%	41.9%
Total	100% (n=1079)	100% (n=458)	100% (n= 155)	100% (n= 74)

Those that were 11 or under on their first referral, were property offenders, or were determined to have a medium or high risk to reoffend tended to have return to custody problems (see Table 20). While one-quarter of the ADJC releases had their first referral before they were 11 years old, approximately one third of the recidivists (31.7%) or multiple recidivists (33.6%) began their delinquency career at a young age. Fully 40.7% of the ADJC releases that were sentenced to ADC when they were under 18 years old had their first juvenile referral at a very young age. While slightly over one-half of the releases (52%) were property offenders, at least 55% with *Any Return to Custody* or *Multiple Returns to Custody* or were sentenced to *ADC Before They Were 18* years old were property offenders. Juveniles who were under 11 at their first referral or were property offenders or were high risk, had the highest multiple return to custody rates. ADJC employs a public safety risk assessment instrument that was originally designed to establish length of stay guidelines for ADJC commitments. Given the high percentage of ADJC commitments with court ordered minimums, the public safety risk instrument is now used for various supervision and treatment purposes by Department staff. The risk instrument was originally developed in 1995. As part of the Department's effort to establish a classification system, the risk instrument is currently being revalidated by NCCD on the 1999 release cohort. When constructed by NCCD in 1995, the risk instrument used re-referral to the juvenile justice system or adult court charges, *not return to custody*, as the measure of reoffense risk. Therefore, the comparison

of risk to re-offend to return to custody rates examined in this report face two challenges. First, juveniles in the original validation sample(1993) may differ significantly from those in the 1997 release cohort rendering the factors relevant to predicting re-offense rates in 1993 to predicting reoffense rates in 1997 irrelevant. A second possible confounding factor is that there are several legal steps between referral/arrest and custody e.g., petitions, that affect the proportion of cases that end up going to court. Therefore, a comparison of risk to reoffend estimates i.e., to be arrested, to actual return to custody rates, may incur interpretation problems caused by the intervening forces at play within Arizona's juvenile justice system. Nevertheless, as displayed in Table 20, the existing ADJC risk instrument does a decent job with the juveniles assigned to the Low Risk category, insofar as never more than 10% of the recidivists or serious recidivists were found to be Low Risk upon their initial commitment to ADJC.

Table 21

	<b>All Releases</b>	<b>Any Return to Custody</b>	<b>Multiple Returns to Custody</b>	<b>ADC Custody Under 18</b>
<b>Family Criminlity.</b>				
<b>None</b>	57.3%	52.2%	53.8%	50.7%
<b>W/in 10 years</b>	15.2%	18%	14.6%	21.1%
<b>W/in 3 years</b>	18.7%	20%	19.6%	18.3%
<b>Current incarceration.</b>	8.8%	9.8%	12%	9.9%
<b>Total</b>	100% (n=1062)	100% (n=460)	100% (n=158)	100% (n=71)

Table 21 (continued)

		<b>Any Return to</b>	<b>Multiple Returns</b>	<b>ADC Custody</b>
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	All Releases	Custody	to Custody	Under 18
<b>Home Life</b>				
<b>Stable</b>	34.9%	34.8%	36.1%	31%
<b>Lack of Cooper.</b>	41.1%	42%	41.8%	43.7%
<b>Discord/ Abuse</b>	10.8%	12%	11.4%	14.1%
<b>Domestic Violence</b>	13.2%	11.3%	10.8%	11.3%
<b>Total</b>	100% (n=1062)	100% (n=460)	100% (n=158)	100% (n=71)

Interestingly, most recidivists or serious recidivists came from homes *without* any family criminality. Nevertheless, approximately two-thirds of the recidivists or serious recidivists had problems in their home lives. While these problems may have included domestic violence, more often than not, the problems were less serious, and may have involved some lack of cooperation. In fact, over 40% of the juveniles with *Multiple Returns to Custody* or were sentenced to *ADC Before They Turned 18* came from homes with a lack of cooperation.

### Logistic Regression Analysis

The data consists of release cohorts 1996 through 1999. Of the 3624 observations, 404 recidivated to ADC, 822 to ADJC, and the remaining 2398 did not recidivate. The independent variables consist of categorical, interval and ratio levels of data; in all there are 13 of them. Given below is a description of the variables and their relationship to return to custody.

**Race:** Minorities excluding Native Americans are more likely to return to custody than Caucasian.

Caucasian 29.7%  
African-American 41.4%  
Native American 27.5%  
Hispanic 36.8%  
Asian 31.8%  
Mexican National 30.9%

**Gender:** Males are more likely to recidivate than females

Male 36%

Female 17.4%

**Substance Abuse:** Juveniles with substance abuse problems are more likely to re-offend than those without substance problems.

Substance abuse and return to custody 35.4%

No Substance abuse and return to custody 33.4%

**History of Abuse and Neglect:** Juveniles who have been habitually abused and neglected are more likely to return than juveniles who are not.

Abuse and neglect and return to custody 38.3%

No abuse and neglect and return to custody 33.0%

**Gang Affiliation:** Gang Affiliation increases the chance of return to custody.

Gang Affiliation and return to custody 39.6%

No Gang Affiliation and return to custody 28.8%

**Three or More Property Offenses:** The chances of recidivism increases considerably if a juvenile has three or more property offenses than if he or she has less than 3 property offenses.

Property offenses (as defined above) and return to custody 40.8%

No property offenses and return to custody 27.2%

**Age at Release:** Juveniles 15 years and below of age are more likely to recidivate than those above 15 years.

<u>Age at Release</u>	<u>% of recidivism</u>
12	57.1%
13	65.9%
14	55.8%
15	50.9%
16	37.8%
17	20.8%
18	35.1%

**Number of Referrals:** In general, as the number of referrals increase, the chances of return to custody also increase.

<u>Number of Referrals</u>	<u>% of recidivism</u>
1-7	26.2%
7-13	35.6%
13-19	37.2%
19-25	33.6%
25 and above	41.1%

**Number of Adjudications:** The same trend as in the case of referrals is observed. In fact, referrals and adjudications are highly correlated.

<u>Number of Adjudications</u>	<u>% of recidivism</u>
1-4	27.6%
4-7	36.5%
7-10	38.1%
10-13	34.7%
13 and above	35.8%

**Number of Felony Petitions:** As the number of felony petitions increase, the rate of return to custody increases.

<u>Number of Felony Petitions</u>	<u>% of recidivism</u>
1-3	29.3%
3-5	36.6%
5-7	42.9%
7-9	47.3%
9 and above	52.5%

**Length of Stay:** See Table 22 and Figures 18 and 19 below for an examination of the relationship between length of stay and return to custody.

**TABLE 22**

**THE LIKELIHOOD OF RECIDIVISM AT VARIOUS AGES**

AGE AT RELEASE	RACE	
	CAUCASIAN %	AFRICAN- AMERICAN %

12	77.16	82.38
13	65.06	72.04
14	50.64	58.68
15	36.12	43.90
16	23.75	30.12
17	14.65	19.19

The probability of recidivism for a typical Caucasian and African-American youth at various ages at release is given in Table 22. A typical youth is a male who has had two felony petitions, ten referrals, five adjudications against him, and an average length of stay of 5.76 months. Also a typical juvenile did not report any of the following: substance abuse, gang affiliation, history of abuse and neglect at home and no more than two prior property offense petitions (for logit estimates from which these probabilities are derived, see column 2 of the Appendix). As age at release increases, the likelihood of recidivism decreases. The rate at which recidivism declines is most rapid during the ages 12 to 14. After that, though there is a decline, it is not quite as rapid as in the earlier phase (refer to Table 23). Probably there is some indication here to suggest that treatment measures aimed at reducing recidivism are most effective during the ages 12 to 14. African-American youths are more likely to recidivate than Caucasian youths. The study showed no statistically significant difference between Caucasian and Hispanic juveniles with respect to their proclivity towards recidivism.

**TABLE 23**

**THE DECREASE IN THE LIKELIHOOD OF RECIDIVISM AT VARIOUS AGES**

AGE AT RELEASE	RACE	
	CAUCASIAN (%)	AFRICAN AMERICAN (%)



12	10.5	8.6
13	13.54	12.00
14	14.89	14.45
15	13.75	14.68
16	10.80	12.55
17	7.45	9.24

TABLE 24

## LENGTH OF STAY AND RECIDIVISM

Length of Stay	Race	
	Caucasian (%)	African-American (%)
1	17.5	22.7
2	15.7	20.5
3	15.1	19.8
4	14.9	19.5
5	14.7	19.3
6	14.6	19.2
7	14.5	19.1
8	14.4	19
9	14.4	19

As can be seen from Table 24 and Figures 18 and 19, controlling all other factors, as length of stay increases, the probability of recidivism decreases. In case of Caucasian juveniles, the probability of recidivism decreases from 17.5% after a month of stay to 14.4 % after 8 months of stay after which the probability stabilizes. In other words, the research presents an hypothesis for future research which implies that there may be no advantage with respect to recidivistic behavior in postponing the release of certain juvenile beyond the eighth month.

### **B. OUTCOMES BY COMMITTING COUNTY**

This section of the report represents the results from the supplemental analyses of the outcome evaluation databases of the ADJC release cohorts relative to their committing county authority. More specifically, this section reports the results of analyses to determine the relationship, if any, between

return to custody rates for the 1996, 1997 and 1998 release cohorts and their committing county authority which are reported here for Maricopa County, Pima County and all other (Rural) counties.

**Table 25**

<b>Comparisons of Total Returns to Custody and Proportions of Total Release Cohorts for 1996, 1997 and 1998 by Committing County Authority</b>						
Release Cohorts						
	1996		1997		1998	
County	Returns	Proportions	Returns	Proportions	Returns	Proportions
Maricopa	52.9	54.2	49.4	51.5	56.8	50.7
Pima	21.5	20.9	24.8	23.1	22.2	23.0
Rural	23.8	24.9	25.8	25.3	21.0	26.2

Table 25 shows the total return to custody rates for Maricopa, Pima and the Rural Counties separately for each of the three release cohorts. Overall these data from Table 25 show that return to custody rates vary across the Counties and across the cohorts. For example, from Table 25 these data show that return to custody rates for Maricopa County were lowest for the 1997 cohort (49.4 percent) and highest for the 1998 cohort (56.8 percent). For Pima County, Table shows that the return to custody rates were lowest for the 1996 cohort (21.5 percent) and highest for the 1997 cohort (24.8 percent). Finally, for the Rural Counties Table 25 shows that the return to custody rates were lowest for the 1998 release cohort (21 percent) and highest for the 1997 cohort (25.8 percent).

Table 25 also presents data relative to the proportion of the release cohorts from each of the three counties. (These data were originally presented in the demographic profiles of the releases cohorts in Table 2 on page 17 of the Fourth Annual Report) These data allow for comparisons with the return to custody rates to determine the extent to which they are representative of the committing counties contribution to the release cohort. Using these data for comparisons, Table 25 shows that the return to custody rates of the three counties are generally consistent with their proportions in the release cohorts for 1996 and 1997 (e.g. 25.8 versus 25.3 for 1997 in the Rural Counties). However, Table 25 also shows that the return to custody rate (56.8 percent) for Maricopa County is substantially higher than County's contribution to the release cohort (50.7 percent) in 1998. Conversely, Table 25 shows that the return to custody rate for the Rural Counties is substantially lower than those Counties' contributions to the release cohort (26.2 percent) in 1998. Table 26 presents the return to custody details by committing county for the 1996 through 1998 release cohorts.

**Table 26**

<b>ADJC 1996 Release Cohort 3-Year Outcomes Most Serious Outcome by County</b>									
		<b>ADC</b>	<b>Recommit</b>	<b>Parole Revoked</b>	<b>Total</b>	<b>Discharge from Parole</b>	<b>Parole</b>	<b>Direct Discharge</b>	<b>Total</b>
<b>Maricopa</b>	# %	101 51.3	1 8.3	80 59.3	182 52.9	240 54.2	7 77.8	12 41.4	259 53.8
<b>Pima</b>	# %	47 23.9	0 0.0	27 20.0	74 21.5	88 19.9	1 11.1	7 24.1	96 20.0
<b>Rural</b>	# %	45 22.8	11 91.7	26 19.3	82 23.8	110 24.8	1 11.1	10 34.5	121 25.2
<b>Missing</b>	# %	4 2.0	0 0.0	2 1.5	6 1.7	5 1.1	0 0.0	0 0.0	5 1.0
<b>Total</b>	# %	197 100	12 100	135 100	344 100	443 100	9 100	29 100	481 100
<b>ADJC 1997 Release Cohort 2-Year Outcomes Most Serious Outcome by County</b>									
		<b>ADC</b>	<b>Recommit</b>	<b>Parole Revoked</b>	<b>Total</b>	<b>Discharge from Parole</b>	<b>Parole</b>	<b>Direct Discharge</b>	<b>Total</b>
<b>Maricopa</b>	# %	94 52.5	2 10.5	107 50.2	203 49.4	319 54.3	33 54.1	8 23.5	360 52.8
<b>Pima</b>	# %	41 22.9	4 21.1	57 26.8	102 24.8	117 19.9	19 31.1	15 44.1	151 22.1
<b>Rural</b>	# %	44 24.6	13 68.4	49 23.0	106 25.8	151 25.7	9 14.8	11 32.4	171 25.1
<b>Total</b>	# %	179 100	19 100	213 100	411 100	587 100	61 100	34 100	682 100
<b>ADJC 1998 Release Cohort 1-Year Outcomes Most Serious Outcome by County</b>									
		<b>ADC</b>	<b>Recommit</b>	<b>Parole Revoked</b>	<b>Total</b>	<b>Discharge from Parole<sup>v</sup></b>	<b>Parole</b>	<b>Direct Discharge</b>	<b>Total</b>
<b>Maricopa</b>	# %	41 61.2	1 10.0	145 57.5	187 56.8	279 50.8	144 45.4	33 45.2	456 48.6
<b>Pima</b>	# %	16 23.9	2 20.0	55 21.8	73 22.2	109 19.9	94 29.7	16 21.9	219 23.3
<b>Rural</b>	# %	10 14.9	7 70.0	52 20.6	69 21.0	160 29.1	79 24.9	24 32.9	263 28.0
<b>Total</b>	# %	67 100	10 100	252 100	329 100	549 100	317 100	73 100	939 100

### **C. OUTCOMES BY PAROLE SUPERVISION LEVEL**

Table 27

<b>OUTCOME BY LEVEL OF PAROLE SUPERVISION*: 1999 RELEASE COHORT</b>						
<b>Level</b>	<b>All Releases</b>	<b>Sentenced to ADC</b>	<b>ADJC Re-Commitment</b>	<b>ADJC Parole Revocation</b>	<b>Total Recidivism</b>	<b>Successful</b>
<b>High</b>	26.9%	33.9%	0	37.9%	36.7%	24.5%
<b>Medium</b>	40.3%	23.2%	100%	45.1%	39.5%	40.5%
<b>Low</b>	16.6%	1.8%	0	17%	12.9%	17.6%
<b>Missing</b>	16.2%	41.4%	0	0	11%	17.5%
<b>Total</b>	100% (n=1040)	100% (n=56)	100 (n=1)	100 (n=153)	100 (210)	100 (n=830)

\* at release from an ADJC secure institution

More of the juveniles in the 1999 release cohort were placed on a Medium Level of supervision (40.3%) than High or Low Levels (see Table 27). More of the juveniles that recidivated were on a Medium Level (39.5%) of Parole supervision than were on a High (36.7%) or Low (12.9%) Level. This was largely due to the high proportion of Parole Revocations(45.1%) that were supervised on the Medium Level. Unfortunately, the Department's automated system, Youthbase, lacked data on parole supervision level for a very high proportion (16.2%) of cases that were released in 1999.

Table 28

<b>Type of Parole Revocation by Supervision Level*: 1999 Release Cohort</b>				
	<b>Parole Supervision Level</b>			
<b>Type</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>Total</b>
<b>Technical Violators</b>	60%	78.4%	87.7%	79.1%
<b>Re-Awards</b>	40%	21.6%	12.3%	20.9%
<b>Total</b>	100% (n=35)	100% (n=37)	100% (n=81)	100% (n=153)

\*immediately prior to their revocation.

The vast majority (79.1%) of the Parole Revocations were for technical violations and 20.9% were Re-Awarded to ADJC by an Arizona Juvenile Court. As the Parole supervision level increased in intensity, the proportion of Re-Awards increased from 12.3% (Low) to 40% (High).

#### **D. COMPARISON BETWEEN COMMITMENT OFFENSE AND RETURNING OFFENSE**

One of the interesting questions relating to recidivism is whether the crimes committed after release from secure care, and hence the reason for subsequent re-confinement, are less serious than the ones for which they were initially incarcerated. If treatment programs that a juvenile experiences while in confinement are effective, one would expect the juveniles either not to recidivate or to commit less serious crimes if they should return to custody.

A comparative analysis was conducted of the commitment felony class of the 1999 release cohort to the felony class of their returning offense (for just those juveniles that recidivated). Excluding the cases originally committed on a misdemeanor,<sup>vi</sup> over one-third (38%) of the juveniles returning to



custody returned for a less serious offense. While these juveniles *did return to custody*, they returned for less serious offenses and may demonstrate some minor successes for ADJC programs

#### **A Non-Parametric Test for testing Differences in Felony Class Before and After Confinement**

A statistical test for comparing the severity of offenses committed before and after confinement is afforded by the Sign test and the Wilcoxon Signed Rank test. The present analysis focuses only on recidivated juveniles re-confined to either ADJC or ADC. Repeated observations of those who recidivated to ADJC are retained but repeated observations of those who recidivated to ADC are eliminated. The release cohorts examined are 1997, 1998 and 1999 and the number of observations for which prior and subsequent felony class data is available are 1179.

Both the tests show no statistically significant difference in the severity of offense before and after confinement. The evidence seems to point in the direction of no decrease in the severity of offenses after the juveniles have undergone treatment programs with ADJC.

**E.**

**OUTCOMES**

**BY LENGTH**

**OF STAY**

Up to a certain point, the longer ADJC juveniles spend in secure custody the lower their return to custody rates. Figures 20 through 22 display a consistent pattern of higher return to custody rates for 0 to 6 months than for 7 or more months. What makes this finding so powerful is that it holds true across

three different release cohorts and for two, three and four year follow-up periods. The only anomaly is Figure 23, but aspects of the same pattern as evidenced in the other three charts are present in this chart, and the pattern may not be as discernible because of the relatively short follow-up period of only 12 months. The biggest decrease in return to custody is between the group that was given 4 to 6 months and the group given 7 to 9 months. In Figures 20 through 22 the decrease is at least 17 percentage points. There is also another moderate decrease in recidivism as you move from 7 to 9 months to 10 to 12 months. In Figures 20 through 22 the decline in return to custody is at least 6%. The decline between the 10 to 12 month length of stay category and the 13 months or more category is not as large as the previous two decreases, and may be suggestive of a general threshold. Section 3A

of this report contains regression analyses of all four release cohorts and provides additional clarification on this important relationship.

Given the same length of stay, juveniles committed for less serious offenses tended to return to custody more often than juveniles committed for more serious offenses (see Figure 24). In fact, among the 1997 releases, almost one-half (41.6%) of the juveniles committed for a felony 6 or misdemeanor level offense that served 3 months or less recidivated. In comparison, 12.5% of the juvenile committed for a Felony 1 or 2 offense that served 3 months or less recidivated. This counter-intuitive finding is probably due to the nature of juvenile offenders committed to ADJC. Arizona's violent and chronic juvenile offenders are automatically sent to adult court, and the less serious offenders are managed at the county probation department level. ADJC commitments in the recent past have tended to be juveniles with many contacts with the juvenile justice system that are committed to ADJC on relatively minor offenses like felony class 6 or misdemeanors. What this graphic shows is that many of the juveniles that were committed to ADJC on less serious offenses continued in their delinquent actions, more so than the juveniles that were committed to ADJC on more serious offenses.

#### **F. RE-AWARDS AS A PROPORTION OF PAROLE VIOLATORS**

The proportion of Parole Revocations that were attributed to an Arizona Juvenile Court Re-Awarding the juvenile to ADJC has decreased each year from a high of 84.7% of the 1996 releases to only 20.9% of the 1999 releases (see Figure 25).

#### **4. SUMMARY OF NATIONAL RESEARCH ON JUVENILE OFFENDER RETURN TO CUSTODY**

Nationwide research on recidivism can help inform and provide the necessary context for understanding the short and long-term outcome evaluation findings on releases from the Arizona Department of Juvenile Corrections. This section provides a summary on outcome research conducted by juvenile corrections agencies across the country, as well as national research that has been conducted on outcomes for juvenile offenders. Further detailed information on this research can be found in two earlier reports prepared for ADJC by NCCD: *National Comparisons of Recidivism Measures* (October 1999) and *Research on Recidivism and Serious Juvenile Offenders: A Review of the Literature* (December 1999).

##### **A. State Comparisons of Recidivism Rates**

Like ADJC's outcome evaluation research described in this report, many juvenile corrections agencies across the nation are collecting and reporting outcome data that is intended to measure the

effectiveness of their programs. The primary outcome that decision makers and citizens are most interested in is recidivism. Recidivism can be defined and measured in many ways, but it generally refers to the repetition of delinquent or criminal behavior. This section presents a summary of selected data on recidivism rates from state juvenile corrections agencies across the country. These data are used to make comparisons, where possible, between Arizona's rates and the rates from other states.

### 1. Measuring and Comparing Recidivism as an Outcome

States typically use one or some combination of three distinct methods of measuring recidivism: juvenile re-referral or adult arrest, juvenile re-adjudication or adult conviction, and juvenile recommitment or adult sentence. Arizona does not currently collect data that can be used to compare recidivism rates on re-referrals/arrests or re-adjudications/convictions. To generate data on these outcomes, ADJC would need to be provided with or have access to law enforcement data, juvenile court data, and adult court data.

Although differences in the definitions of recidivism and other technical issues of measurement (e.g. similar follow-up periods) limit comparisons, ADJC does have data that enables comparisons of its recidivism rates with other states using recommitments and sentences to adult corrections outcomes. Recommitment to a juvenile justice program or adult corrections refers to those juveniles who, after release from a state juvenile corrections facility, are returned to custody in a state juvenile corrections facility or to a state adult corrections facility following a sentence in an adult court.

The principal source of information on recidivism rates from state juvenile corrections agencies across the country was a survey conducted by the Florida Department of Juvenile Justice's Bureau of Data and Research and presented in its report entitled *National Comparisons from State Recidivism Studies*. The findings from this report were originally presented in ADJC's *Fourth Annual Report* on its outcome evaluation research (January 2001).

For this report NCCD attempted to update recidivism rates from the state agencies that had previously reported rates using a comparable definition to that of ADJC. To do so, NCCD contacted each of these agencies by telephone to obtain the latest rates and reports when available. From this effort several conclusions can be made about the conduct of outcome evaluation research by juvenile corrections agencies across the country.

First, only a limited number of agencies conduct outcome evaluation research on a continuing (e.g. annual) basis. As a result, updated rates are only available from a few state agencies. In addition, some agencies modify their definitions of recidivism over time. For example, some juvenile corrections agencies have narrowed their definition to include only outcomes in the juvenile justice system excluding those that may have occurred in the adult criminal justice system. Others have expanded their definitions such as adding an adult probation sentence to measured outcomes within the criminal justice system. The next section of this report presents that most recent recidivism rates from ADJC and other state juvenile corrections agencies using comparable definitions and follow-up periods.

## **2. Selected Comparisons of Recidivism Rates from State Juvenile Corrections Agencies**

Figure 26 presents recidivism rates for Arizona, North Dakota and Texas based on returns to custody in a juvenile or adult corrections program within a twelve month follow-up period. Figure 26 presents multiple rates as both North Dakota and Texas also conduct outcome evaluations on an annual basis. From Figure 26, Arizona's return to custody rates for its 1996-1999 release cohorts ranged from a low of 20.1 percent (1999) to a high of 26.6 percent (1998). For the four most recent release cohorts for which comparable definitions were used, Figure 26 shows that North Dakota's rates were some what lower, ranging from 6.6 percent (FY1996-1997) to 13.6 percent (FY1992-1993). However, Figure 26 also shows that the Texas rates are somewhat higher than Arizona's ranging from a low of 26.9 percent (1998) to a high of 31.1 percent (2000).



Figure 27 presents recidivism rates for Arizona, Wisconsin and Texas using the return to custody definition within a twenty four month follow-up period. Figure 27 shows that Arizona's rates ranged from a low of 34.8 percent (1996) to a high of 38.3 percent (1998). These rates were lower than Wisconsin's rate reported at 42.4 percent. Figure 27 also shows that Arizona's rates were lower than the Texas rates which ranged from a low of 41.5 percent (1998) to a high of 44.2 percent (1999).

Figure 28 presents recidivism rates for Illinois, Arizona, Texas and Georgia using the return to custody definition within a thirty six month follow-up period. Figure 28 shows that Arizona's rates ranged from a low of 41.7 percent (1996) to a high of 42.5 percent (1997). Figure 28 also shows these Arizona's rates were higher than Illinois' rate reported at 37.8 percent. However, Figure 28 shows that Arizona's rates were lower than those reported by both Texas and Georgia. Texas reported higher rates of 49.3 percent (1998) and 50.7 percent (1997). Figure 28 shows that Georgia reported the highest rate at 56.0 percent.

Figure 29 presents recidivism rates for Arizona and Texas using the return to custody definition within a forty eight month follow-up period. Figure 29 shows that Arizona's rate of 45.5 percent (1996) was significantly below the rate reported for Texas which was 55.2 percent (1997).

## **Figure 26**

**Figure 27**

**Figure 28**

**Figure 29**

**Figure 30**

### **3. Comparisons Using Data from the State Juvenile Corrections Reporting Program**

As part of a national research effort supported by the U.S. Department of Justice, NCCD created a national data base which contains individual level data on juvenile admissions to and releases from state custody. The research program and data base, the State Juvenile Corrections Reporting Program (SJCSRP), were developed to facilitate reporting on the numbers and characteristics of juveniles taken into custody. Included in the data base is information on readmissions to state juvenile corrections systems. The most recent report, *Juveniles Taken Into Custody, FY 1995 Annual Report*, contains information that is useful in comparing rates with ADJC outcomes.

Using the SJCSRP data, the national average for youths under 17 years of age (in 26 states with an upper age of juvenile court jurisdiction of 17 reporting releases in CY 1993) who were readmitted to state juvenile corrections systems in the twelve months following their release from state custody was 28 percent. Arizona's rates for readmission (parole revocations and recommitments) to ADJC within twelve months after release were 15.3 percent, 18.1 percent, 21.2 percent and 14.7 percent for the 1996, 1997, 1998, and 1999 release cohorts respectively. These rates compare favorably to the national average of 28 percent as shown in Figure 30.

### **B. Interpreting Comparisons of Recidivism Rates**

The comparisons of state return to custody rates presented above show that Arizona's rates compare very favorably to most other states using the same definitions of recidivism. These favorable results in fact may be a reflection of the relative effectiveness of the programs and services employed with juvenile offenders in Arizona compared with those employed in other states. However, there are a number of limitations to these comparisons that require that any interpretations be made with considerable caution.

First, drawing conclusions on differential effectiveness of programming and services is limited by the fact that information on the relative types, intensity and duration of these interventions from state to state are not readily available.

In addition, using the return to custody definition of recidivism may actually underestimate the actual rates of subsequent delinquent or criminal behavior to unknown and variable degrees from state to state. This underestimate is due in part to the number of delinquent or criminal acts that remain unreported or cannot be attributed to a particular offender. Return to custody definitions will also underestimate overall recidivism for some offenders committing subsequent crimes but receiving dispositions not included in this definition such as sentences to adult probation.

Finally, differences in return to custody rates may be the result of differences in the characteristics of the juvenile offenders under the jurisdiction of state agencies. For example differences in the frequency and severity of offenses, risk factors such as the age of on set of offending, and criminogenic factors in the juvenile's environment may all affect responsivity to whatever programs and services may be employed by state corrections agencies.

For all of these reasons conclusions from state to state comparisons must be done with considerable caution and future recidivism research should be conducted so that additional information on across state differences (e.g. offender characteristics, differential programs and services) can be accounted for. Most importantly, comparisons should primarily focus on within state differences in recidivism rates. Future research should primarily focus on uncovering the underlying factors (e.g. changes in populations, policies or practices) that are contributing to changes in rates overtime. This information is the most useful for administrators and managers attempting to proactively develop and implement strategies that can improve their agency's effectiveness over time.

## 5. CONCLUSIONS

Fewer ADJC releases returned to custody within one or two years of release. This is very good news and an affirmation for the fine efforts of Director Gaspar, the Leadership Team and all ADJC staff in working with Arizona's most troubled juveniles. The fact that the 1999 release cohort had the lowest one year return to custody rate of the four release cohorts studied indicates that a real break through may be developing. The fact that the rate of growth in return to custody for the 1996 release cohort has declined from 24 months through 36 and into 48 months indicates that an important benchmark may have been reached - a point where it can be said empirically, that most of the juveniles that are going to recidivate have recidivated by that point. The next Outcome Evaluation report will shed light on this important research issue. Nevertheless, caution is encouraged in interpreting these results because there was a slight increase in the proportion of 1997 releases that returned to custody three years after their release. Keeping this caution in mind, the finding that ADJC return to custody rates compare very favorably to most other states using the same definitions of recidivism is cause for recognition.

For the most part, ADJC institutional success rates for the 1999 release cohort improved over the success rates for the 1998 release cohort. Adobe Mountain, Black Canyon and Eagle Point Schools all increased their success rates, while Catalina Mountain and Encanto had success rate declines. Analysis of the reasons for the variation in institutional success rates has just begun, and these success rate results should be viewed as a work in progress. This work should yield exciting consequences that should enhance ADJC efforts to achieve our mission *of enhancing public protection by changing delinquent thinking and behaviors of juvenile offenders.*

This study found that up to a certain point, the longer ADJC juveniles spent in secure custody, the lower their return to custody rates. Juveniles serving less than six months in ADJC secure care had higher return to custody rates than those serving more than six months. This finding should bolster the efforts of Arizona's juvenile court to provide effective consequences for Arizona's most troubled juveniles and perhaps discourage judges from giving juvenile offenders short sentences which may do little to curb their delinquency.

Results from a logistic regression analysis of 3,624 juveniles released from ADJC from 1996 through 1999 identified characteristics that correlate highly with return to custody. These characteristics include: male, young, minorities, substance abusers, juveniles who were habitually abused or neglected, juveniles that were in gangs, juveniles that had three or more property offenses and juveniles with a high number of referrals/petitions or adjudications. While demographic e.g., gender and race, factors cannot be considered, other criminogenic factors might prove helpful to members of ADJC Superintendent Release Boards as they struggle with important decisions about when to release specific juveniles. Taking into account individual juvenile differences, appropriate consideration of criminogenic factors might be relevant to their efforts to increase their respective institutional success rates.

## **6. FUTURE RESEARCH AGENDA**

This research project has identified four research topics that we think deserve careful attention in the near future. First, much more attention should be focused on the variation among the ADJC housing unit success rates. Knowledgeable institutional staff should work with researchers to identify possible causes for the observed variations and they should work together to closely investigate their ideas. Second, the next Outcome Evaluation report will add the 2000 release cohort to the existing data base and will also extend the follow-up on the 1996 release cohort for five years and the other three cohorts respectively. The five year follow-up for the 1996 cohort and the extension of follow-up for the other three cohorts will permit an analysis of whether ADJC return to custody rates stabilize at a certain point in time e.g., three years. An empirically determined stabilization point may have operational ramifications for ADJC parole officers. Third, more research needs to be conducted on the juvenile offender and juvenile justice system similarities and differences between Arizona and the states selected for comparative return to custody analyses. This research should also focus on the underlying factors that seem to explain the observed variations in state return to custody rates. Finally, research has revealed an apparent relationship between length of stay and return to custody. Shorter lengths of stay are associated with higher recidivism rates, however, after a certain point, the recidivism rate declines appear negligible. Much more research needs to be conducted on this important topic to reveal findings for disaggregated ADJC populations. In other words, research may show that recidivism rates stabilize for certain types of juvenile offenders e.g., those committed for more serious offenses, but that they don't stabilize for others e.g., chronic, less serious offenders.



## APPENDIX

### ESTIMATES FOR LOGISTIC REGRESSION EQUATIONS

VARIABLES	ESTIMATES-1 (T-RATIOS)	ESTIMATES-2 (T-RATIOS)
AGE AT RELEASES	-0.597 (16.06)	-0.593 (-16.01)
# OF REFERRALS	0.022 (3.70)	
# OF ADJUDICATIONS		0.034 (2.92)
# OF FELONY PETITIONS	0.070 (3.71)	0.072 (3.76)
INVERSE OF LENGTH OF STAY	0.258 (2.25)	0.265 (2.32)
SUBSTANCE ABUSE (NO=1 YES=0)	-0.142 (-1.45)	-0.155 (-1.59)
GENDER (MALE=1 FEMALE=0)	1.19 (8.10)	1.18 (8.02)
HISTORY OF ABUSE AND NEGLECT (NO=1 YES=0)	-0.227 (2.15)	-0.236 (2.31)
GANG AFFILIATION (NO=1 YES=0)	-0.43 (5.20)	-0.44 (5.32)
3 OR MORE PROPERTY OFFENSE (NO=1 YES=0)	-0.414 (5.02)	-0.437 (-5.34)

# ESTIMATES FOR LOGISTIC REGRESSION (CONTINUED)

<i>VARIABLES</i>	<i>ESTIMATES-1 (T-RATIOS)</i>	ESTIMATES-1 (T-RATIOS)
DUMMY FOR RACE-1 (AFRICAN-AMERICAN=1 OTHERWISE=0)	0.325 (2.47)	0.319 (2.43)
DUMMY FOR RACE-2 HISPANIC=1 OTHERWISE=0)	0.109 (1.16)	0.101 (1.08)
DUMMY FOR RACE-3 (ALL OTHERS EXCLUDING AFRICAN-AMERICAN, HISPANIC, CAUCASIAN=1 OTHERWISE=0)	-0.240 (-1.65)	-0.269 (1.84)
CONSTANT	7.99 (13.33)	8.05 (13.45)

Two logistic regression equations are reported in the table above. Equation 1 has # of referrals as one of the independent variables while equation 2 has # of adjudications as one of the independent variables. Both # of referrals and # of adjudications could not be accommodated in one equation because they are collinear to each other. The estimated coefficients have the expected sign and, all of them, except DUMMY FOR RACE-2, are statistically significant at most at 7%.

<b>ADOBE MOUNTAIN SCHOOL</b>		
Unit	Program Type	Additional Comments:
Crossroads	Special - Violent Offenders	Program struggling at this time - weak focus.
Oasis	General Population	Fairly strong program.
Journey	Special - Sex Offenders	Functioning well.
Recovery	Special - Substance Users	Program increasing in effectiveness in treatment.
Turning Point	Special - Violent Offenders	data indicates no juveniles after April 99
Hope	General Population	Struggling - high staff turnover, lot of 10-24's.
Estrella	General Population	Solidified with new YPOIII in place.
Genesis	General Population	Fairly strong program.
Freedom	Special - Substance Users	Federal grant program starting up.
Nova	General Population	Weak Manager - limited treatment.
Alpha	General Population	Strong Unit - youth going through quickly.
January	General Population	Strong Unit.
Phoenix	General Population	Strong Unit.
Challenge	General Population	Volatile program - some staff issues.
Kachina	General Population	Weak Manager - treatment focus good.
Enterprise	General Population	Moved buildings; test YPOIII; some adjustment problems.
CharlieNew		data indicates no juveniles after May 99

<b>EAGLE POINT</b>
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Unit	Program Type	Additional Comments:
Cougar	General Population	Opened 9-98
Deer	General Population	Opened 9-98
Elk	General Population	Opened 9-98
Falcon	General Population	Opened 9-98

SUNRISE*		
Unit	Program Type	Additional Comments:
Silver	RAC Program	
Separation		
Cooper	RAC Program	data indicates no juveniles in Dec 99
Iron	RAC Program	data indicates no juveniles in Sept-Nov 99
Gold	RAC Program	data indicates no juveniles in Jan 99

CATALINA MOUNTAIN SCHOOL		
	Program Type	Additional Comments:
Agave	Intractable Offender	This unit in the 1990's was primarily considered a Parole Violator Unit. Amenability to treatment was very low. Juveniles were extremely delinquent in thinking patterns, older (17 and above), as well as very gang orientated. Juveniles like this do not make up a significant part of our population any more. Currently we consider it our Intractable Offender Unit - those resistant to other programs and those close to turning 18.
Chiricahua	General Housing Unit	This unit generally is given youth that are younger or lower functioning. The unit has not changed the type of offender it manages over the years to any major degree. Many youth from this unit have qualified and been sent to Encanto for further care.
Crossroads Saguaro	Intensive Violent Offender Treatment Program	During the late 1990's the type of juvenile admitted to the program has changed. Initially (mid 90's) the offenders had serious violent felony charges, older, and were higher functioning. The law changed in the late 90's sending most of the these type offenders to adult court (mandatory). Since approximately 1998, the offenders have had less serious assaultive histories (usually not involving weapons), are approximately 18 months younger, function at a much lower level, and sentenced to less time by the courts. Some youth do not complete the program because they turn 18 or are transferred to adult jurisdiction for previous offenses.
Manzanita	General Housing Unit	This unit generally manages youth that are over 15 yoa. Most have gang affiliations, moderate and high risk score, and substance abuse issues.
Mesquite	General Housing Unit	This unit generally manages youth that

		are lower functioning, difficult to manage, and many are CPS wards. In the last year it also has developed into the primary unit for Sex Offenders at CMS.
Palo Verde Recovery	Intensive Substance Abuse Treatment Program (Federally Funded)	Houses those youth that meet the following guidelines: Substance Abuse is primary need, must spend 6 months - but no more than 12 in the program, education reading level at 7 <sup>th</sup> grade.
Yucca Separation	Separation	No youth are permanently housed in this unit.

<b>BLACK CANYON SCHOOL</b>		
Unit	Program Type	Additional Comments:
Destiny	General Treatment Boys	In operation for entire year; held boys from outlying Arizona counties
Quest	General Treatment Boys	In operation for entire year, held boys from outlying Arizona counties
Venture	Intake/Reassessment Girls	Also held girls awaiting revocation hearings and if revoked, the girls remained in Venture until reassessed.
Pride	General Treatment Girls	In operation for entire year
Success	Violent Offenders/Long Term Treatment Needs	Also housed pregnant girls due to need to be in air conditioned environment
Boot Camp	First Time Offenders	This was the contract run boot camp program for Maricopa County boys who were first time offenders, low risk scores and only had adjudicated property offenses. The length of stay was only six months in the secure care portion of the program. The program closed and released its last juvenile on 2/14/99.
Independence	Transition/Pregnant Girls	In the same building as the Boot Camp, a Transition and Pregnant girls program was opened in Independence. In the transition program the criteria was that the girl needed to be on an upper level and getting ready to transition to the community. Their length of stay would have been less than 60 days. The pregnant girls would have stayed there for treatment programming as they were taken out of the Success Unit. They were placed in this unit again as they needed the air conditioning environment. The unit opened up on 10/18/99.
Horizon	General Treatment	Primary need Mental Health Treatment
Recovery	Substance Abuse	This took over the Horizon Unit. On 4/1/99 it became the Residential Substance Abuse Treatment program for girls. This is the program where federal

		dollars are combined with state dollars to provide funding for the program. Girls identified for this program have to have a serious substance abuse problem and have to be in the program for not less than six months or more than one year.
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ENCANTO		
Unit	Program Type	Additional Comments
Maya	Female, Mental Health	<p>Is a Treatment Program for Female Youth exhibiting Serious or Developmental Disorders, with a maximum bed capacity of 20. The Maya program emphasizes treatment and rehabilitation in a healing and educational environment in which mental health needs of the female youth are addressed in a gender specific approach. The Maya Program is a place for female youth to become psychologically well and to develop and practice new skills and new patterns of behavior, which will replace their delinquent habits.</p> <p>The strategies which are used addresses Gender Issues such as <b>victimization, economic deprivation, cultural issues and unequal opportunities</b>. These issues are addressed through Counseling, Medication Management, Behavioral and Specialized Groups, Family Involvement, Level System, Religious Programming, and Education. The staff of Maya are specifically selected and trained to be able to provide the specialized care that this unique population requires.</p>
Triumph	Male, Mental Health	<p>No real leadership, many staff changes and Encanto moved to Adobe Mountain in 1999</p> <p>The Triumph program is a mental health program for male youth, with a maximum bed capacity of 34. The youth assigned tot he Triumph program have been referred from one of the other secure care facilities or the courts because of mental and emotional issues that could not be addressed at that facility. Triumph maintains a therapeutic environment that allows for intensive group and one-on-one counseling, family work, educational and religious programming. Counseling to address specific issues are addressed by Triumph's Psychiatrist, Psychologist, and four Clinical Specialists. The staff at Triumph are also specially selected and trained to be able to provide the specialized care that this unique population requires.</p>

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## NOTES

- i. Maricopa County had a majority of the releases for the other three cohorts.
- ii. A total of 255 (25%) of the 1,040 1999 releases lacked data on their level on release. Level data was not collected in the Department's automated system, Youthbase, until the automated *Individual Development Plan* was created in 1998. It wasn't a requirement to input that information into Youthbase until 1999, as a result, the data presented in this section contain a high percentage of missing data (24.5% of the 1,400 releases lacked data on this element).
- iii. The appendix of this report contains a listing of the programming at each ADJC Housing Unit by Secure School for 1999. This listing will assist in future analyses of the observed differences in success rates.
- iv. In Standards for Improving Research Effectiveness in Adult and Juvenile Justice, the Washington State Institute of Public Policy found that an appropriate recidivism time frame should start when the offender is released into the community, and the date of the recidivism event should be the date the crime was committed. The time frame should be long enough to allow 99% of the offenses to be adjudicated, and a minimum of 30 months is necessary for juvenile offenders and 36 months for adults.
- v. One case had a missing value for county.
- vi. Since the data base does not differentiate among the different misdemeanor classes these cases were omitted because the limitation in the data base precluded this group of offenders from scoring a reduction in the seriousness of their returning offense.